Amendments to the Claims;

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (previously amended) An inductor assembly comprising:

at least one coil of insulated conductor material defining an inside volume,

an inner core of magnetic core material located within the inside volume, and

an outer core of magnetic core material including topwall and sidewall structure overlying the coil and inner core and having opposite inner wall portions facing polar ends of the coil and inner core such that at least two magnetic gaps exist between ends of the inner core and the opposite inner wall portions of the outer core.

2. (original) The inductor assembly of claim 1 wherein the coil and the inner core have a flattened shape.

3. (original) The inductor assembly of claim 1 wherein the outer core has a rectangular box shape.

4. (original) The inductor assembly of claim 1 comprising a low-profile inductor wherein the outer core has a rectangular box shape and the coil and inner core have a flattened shape.

5. (original) The inductor assembly of claim 1 wherein terminal ends of the coil of insulated conductor material have outwardly exposed flat contact surfaces to facilitate surface mounting of the inductor assembly to a printed circuit board or circuit substrate.

6. (original) The inductor assembly of claim 5 wherein the exposed flat contact surfaces are coated with an antioxidant material not containing lead.

7. (original) The inductor assembly of claim 1 wherein at least one end of the inner core has a recess defined to control inductive characteristic rolloff of the assembly as the inner core approaches core saturation.

8. (original) The inductor assembly of claim 1 wherein the magnetic core material of the inner core and the outer core is selected from a group including MnZn, NiZn, MPP, Ni-Fe, Fe-Al-Si, amorphous alloys, iron, and iron powder.

9. (original) The inductor assembly of claim 1 further comprising potting material for encapsulating the inner core and coil in position relative to the outer core to maintain the at least two magnetic gaps.

10. (original) The inductor assembly of claim 1 further comprising adhesive for securing the inner core in position within the inside volume of the coil, and potting material for encapsulating the inner core and coil in position relative to the outer core to maintain the at least two magnetic gaps.

11. (original) The inductor assembly of claim 1 comprising multiple coils thereby forming a transformer.

12. (previously amended) A method for constructing an inductor assembly comprising steps of:

forming at least one coil of insulated conductor material to define an inside volume,

forming an inner core from magnetic core material having a size and geometry adapted to be located within the inside volume,

securing the inner core in place within the inside volume to form a subassembly,

forming an outer core of magnetic core material having a continuous topwall and sidewall to provide a structure overlying the coil and inner core and opposite inner wall portions facing polar ends of the coil and inner core, and

locating and securing the subassembly in the outer core between the opposite inner walls such that at least two magnetic gaps exist between ends of the inner core and the opposite inner walls of the outer core.

13. (currently amended) The method for constructing an inductor assembly <u>set</u> ~~wet~~ forth in claim 12 wherein the steps of securing the inner core in place within the inside volume and locating and securing the subassembly in the outer core result in said at least two

magnetic gaps being of substantially equal length as determined along a longitudinal axis of the inner core and coil subassembly.

14. (original) The method for constructing an inductor assembly set forth in claim 12 comprising a further step of preparing terminal ends of the coil for direct surface mount connection to a printed circuit board or circuit substrate.

15. (original) The method for constructing an inductor assembly set forth in claim 14 wherein the step of preparing terminal ends comprises a step of defining flat faces having surfaces lying substantially within a single plane.

16. (original) The method for constructing an inductor assembly set forth in claim 15 wherein the step of preparing terminal ends further includes a step of applying a lead-free antioxidant material to the flat faces.

17. (original) The method for constructing an inductor assembly set forth in claim 15 wherein the step of preparing terminal ends further includes a step of tinning.

18. (original) The method for constructing an inductor assembly set forth in claim 12 wherein the step of forming the inner core includes the step of defining a recess in an end of the inner core to control inductive characteristic rolloff of the assembly as the inner core approaches core saturation in use within an intended circuit environment.

19. (original) The method for constructing an inductor assembly set forth in claim 12 wherein the steps of forming the inner core and forming the outer core are carried out by using magnetic core material selected from a group including MnZn, NiZn, MPP, Ni-Fe, Fe-Al-Si, amorphous alloys, iron, and iron powder.

20. (original) The method for constructing an inductor assembly set forth in claim 12 wherein the step for forming the at least one coil comprises the step of forming plural coils so that the inductor assembly comprises a transformer.

21. (previously presented) A low profile high current multiple gap inductor assembly comprising:

at least one insulated electrical conductor sized to carry a relatively high current formed into a helical coil having a generally flattened shape and formed by at least one turn around an inside open volume defined by the coil,

an inner core of magnetic core material having a generally flattened shape sized to fit within the open volume of the coil,

a low profile box-shaped outer core of magnetic core material including continuous topwall and sidewall portions and having opposite inner wall segments facing polar ends of the coil and inner core such that at least two magnetic gaps exist between ends of the inner core and inner wall segments of the outer core,

potting material encapsulating the inner core and coil within an interior volume of the outer core to maintain the two magnetic gaps, and

electrical contact regions defined at opposite ends of the electrical conductor for enabling surface mounting and electrical connection of the inductor assembly to conductive traces of a printed circuit board.

22. (previously presented) The low profile high current multiple gap inductor assembly set forth in claim 21 wherein the inner core is held in position within the inside open volume of the coil by an adhesive material.

23. (previously presented) The low profile high current multiple gap inductor assembly set forth in claim 21 wherein the generally flattened shapes of the coil and inner core are generally oval shaped.

24. (previously presented) The method for constructing an inductor assembly set forth in claim 12 wherein the step of forming at least one coil of insulated conductor material to define an inside volume comprises forming a flattened helical coil having at least one turn and wherein the step of forming an inner core from magnetic core material having a size and geometry adapted to be located within the inside volume comprises forming a flattened inner core.